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SOCIO-ECONOMIC PROFILE OF THE SOUTHERN CALIFORNIA BILLFISH ANGLERS

by

Samuel F. Herrick, Jr.

ADMINISTRATIVE REPORT LJ-84-12

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Southwest Fisheries Center
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INTRODUCTION

The southern California recreational billfish fishery extends from the northwest corner of the Baja California coast to the Santa Barbara Channel Islands. Most of the fishing activity, which consists of trolling natural or artificial baits¹ with rod and reel, takes place within 60 miles seaward of the shore. Striped marlin (Tetrapturus audax) is the major target species, and dominates the recreational billfish catch. Broadbill swordfish (Xiphias gladius) is also a popular species in this fishery although the angling success rate for swordfish is quite low relative to that for striped marlin. Shortbilled spearfish (Tetrapturus angustirostris) are sometimes caught in small numbers during periods of unusually high sea-surface temperatures and on rare occasions, catches of blue marlin (Makaira nigricans) and black marlin (M. indica) have occurred.

Socio-economic data on billfish angling trips taken off southern California were collected through an intercept survey conducted during the 1982 fishing season. Approximately 200 anglers were interviewed by employees of California's Department of Fish and Game at major billfish landing sites from San Diego to Los Angeles, during the months of June through November. The survey questionnaire developed to obtain the desired information pertaining to billfish angling off southern California represents a synthesis of questions taken from the questionnaire used in the National Marine Fisheries Service's (NMFS) ongoing National Statistical Survey of Marine Recreational Fishermen, and from the questionnaire used for NMFS's Socio-economic Survey conducted in 1981. In addition specific data on angler participation rates, annual catch and vessel expenditures were solicited by the State of California. The survey questionnaire is presented in the Appendix.

This report presents the results of the 1982 survey. In the following sections demographic characteristics, expenditures on boats and equipment,

¹California sport fishing regulations state, in general, fin fish may be taken only on hook-and-line or by hand (Title 14, Fish and Game Code, Section 28.65). There is also a possession limit of one marlin per angler per day (Title 14, Section 28.50). California also prohibits the commercial sale, import for sale and export of striped marlin.

fishing trip expenditures and trip satisfaction aspects of southern California billfish anglers are described. Results are presented in terms of overall summary statistics which are calculated using the entire intercept sample, and when useful, are calculated for only those individuals responding to the question of interest. In addition, participants in the survey can be categorized as either boat owner/operators or non-owners/non-operators, i.e., passengers for a particular trip. Results are distinguished on this basis in cases where they are significantly different between each boat ownership category. A summary and discussion of the major findings is provided in the final section.

RESULTS

Demographic Characteristics

Results from the 1982 survey revealed that billfish angling off southern California is predominately a male activity. Only 9 percent of those participating in the survey were female. The average age of anglers was 44.5 years with a reported age span of 12.0 to 75.0 years. Anglers between the ages of 36.0 and 55.0 years comprised over 56 percent of the sample. The average age of anglers who were boat owners was significantly greater than that of non-owners, 46.5 years versus 30.2 years respectively.² The distribution of anglers by age is shown in Figure 1.

More than 50 percent of the anglers responding had at least ten years of billfish angling experience (Figure 2). The average number of years of prior billfish angling experience was 13.9, ranging from 1.0 years to 42.0 years for the sample. Anglers who owned or operated a boat suited for billfish angling had significantly more experience, 16.4 years average, than non-owners, 6.5 years average.

Information on billfish angling avidity, a measure of activity level, was also collected. Over 58 percent of the anglers providing avidity information had made 10 or fewer billfish fishing trips off southern California during the preceding 12 months. The average number of trips during the past 12 months

²Based on t-tests evaluated at the $\alpha=.05$ significance level. Hereafter, $\alpha=.05$.

was 14.0,³ ranging from a low of one trip to a high of 100. The distribution of anglers by number of trips during the previous 12 months is presented in Figure 3. Boat owners/operators averaged significantly more trips during the previous 12 months than their counterparts, 16.0 versus 5.7 trips respectively.

With regard to occupational status, anglers were categorized as either students, homemakers, retired or other. The distribution of anglers by these occupational categories is shown in Figure 4. By far, the greatest proportion of anglers surveyed placed themselves in the "other" category which would account for those pursuing a livelihood. Of the anglers participating in the survey more than 77 percent reported incomes in excess of \$35,000 annually, the upper end of the survey scale (Figure 5).

Based on their experience for the previous 12 months, the average annual billfish catch for anglers participating in the survey was 2.5 fish, ranging from 0.0 to 33.0 fish annually. More than 69 percent of the anglers reported catching 3 or fewer billfish annually (Figure 6). As would be expected, the average catch of billfish by boat owners/operators was significantly greater, 2.9 fish annually, than that for non-owners, 1.9 fish annually.

Expenditures on Boats and Equipment

Information was also collected on boats used for billfish angling.⁴ Of the anglers interviewed, 110 or 55% of those sampled, owned a boat for the purpose of deep-sea angling. Of those indicating boat ownership approximately 23 percent possessed more than one boat (Figure 7). Of those owning or operating the boat used for the trip being reported, 4.7 years was the average length of ownership of that particular boat. Length of ownership ranged from 1.0 years to 25.0 years (Figure 8).

More than 75 percent of the boats used for the trips surveyed were at

³For this survey, the sampling unit was an angler fishing trip rather than an individual angler. Therefore data pertaining to the individual fisherman's level of billfish fishing activity will be biased in favor of the more avid fisherman, i.e., the more trips a fisherman makes, the more likely he will occur in the sample. To remove the avidity bias where it can occur, means are computed using an inverse weighting scheme (see Stuart, 1968). Data that are trip specific are not biased in this manner.

⁴While boats can be chartered commercially for the purpose of billfish angling off southern California, the focus of this survey was on the non-commercial use of boats for billfish angling, the dominate means of engaging in this activity off southern California.

least 25 feet in length (Figure 9). Most included in the survey, 76 percent, were permanently moored rather than trailered to and from a launching site. The majority of boats, over 56 percent, were powered by inboard engines (Figure 10) and 63 percent had two engines, regardless of engine type, that being the maximum number for any boat. Fuel type was almost evenly split, 49 percent gasoline, 51 percent diesel. Ninety-four percent of the boats included in the survey had 124 or more horsepower overall (Figure 11).

Boat owners or operators were also asked to provide an assessed value for the boat used in the trip under consideration. Assessed values ranged from \$2,000 to \$350,000 with an average of \$88,146. Most of the boats, 56 percent, were assessed at \$80,000 or less, while 38 percent had assessed values greater than \$100,000 (Figure 12). Anglers were also asked to estimate the total cost of the saltwater fishing equipment (excluding boats and boating equipment) they currently owned. Estimates ranged from \$0.0 to \$9,998 with an overall average of \$1,696. More than 72 percent of those having an investment in equipment estimated their investment to be \$3,000 or less, with an average of \$2,618 (Figure 13).

Data on the annual expenditures related to owning and operating a boat, used at least part of the time for billfish angling, were also collected. With the possible exception of repairs and miscellaneous expenditures, these are fixed expenses, i.e., they do not vary with the level of angling activity.

For those boat owners/operators who incurred mooring costs during the past 12 months, the average expenditure was \$3,003, ranging from \$100 to \$39,000; 73 percent had an annual mooring expense of \$3,000 or less (Figure 14). The greatest annual expenditure, based on the survey average, was for boat repairs. The average repair expense over the past 12 months was \$4,352, with a low of \$50 and a high of \$60,000. More than half the boats reporting had annual repair expenses of \$2,000 or less according to the distribution shown in Figure 15. Expenditures for hull insurance ranged from \$150 annually to \$23,000, with a mean of \$1,417. Of the anglers insuring their boats, over 70 percent paid less than \$1,000 annually for coverage (Figure 16). Fees for licenses and taxes were other annual expense items associated with boat ownership. Together, the average expenditure for licenses and taxes was \$914, with a minimum of \$6 and a maximum of \$18,700. Over 50 percent of the reported expenditures on licenses and taxes were for amounts less than \$500 (Figure 17). Miscellaneous expenditures associated with boat ownership ranged from \$27 to \$25,000 annually. The mean was \$2,223 and more than 68 percent of the boat owners responding reported 12 month miscellaneous expenses of \$1,000 or less (Figure 18).

Data on annual angling club expenditures, another fixed expense, indicate that at least 37 percent of the anglers participating in the survey incurred an annual expense related to club affiliation. For those, club expenses averaged \$445 annually, ranging from \$20 to \$7,500; more than 82 percent reported that their annual club expense was less than \$500 (Figure 19).

When annual expenses for boat moorage, repairs, insurance, license and taxes, miscellaneous and club dues are totaled, the average total annual expenditure is \$8,651, with more than 56 percent of the boat owners/operators indicating a total of no more than \$1,000 annually for boat ownership/operation related expenses (Figure 20).

Trip Expenditures

The survey results reported in this section describe expenses incurred by billfish anglers on a per trip (angler trip) basis, where a representative trip is one day in length.⁵ Therefore, for a given time period, these expenses will vary with the level of billfish angling activity. On a typical billfish angling trip, expenses are incurred for fuel, food and beverages, gear and bait, as well as some miscellaneous expenses. Except for miscellaneous expenses, boat owners/operators spent significantly greater amounts on these items than their passengers.

Fuel represented the greatest single expense per trip, accounting for 56 percent of the overall average total trip outlay per angler. The average fuel expense per angler per trip was \$74.10 ranging from \$0.0 to \$400.00; over 75 percent of all anglers reported that their fuel expense did not exceed \$100.00 (Figure 21). Fuel for boat owners/operators averaged \$106.30 per trip while for non-owners it averaged \$38.82 per trip.

Food and beverage expenses comprised almost 12 percent of the overall trip cost, averaging \$15.27 per angler trip. This expense ranged from \$0.0 to \$140.00, with over 60 percent of the anglers surveyed spending \$10.00 or less per trip on food and beverages (Figure 22). Boat owners/operators spent an average of \$21.54 on food and beverages per trip compared to \$8.41 for non-owners.

Expenditures for expendible gear averaged \$14.72 per angler trip, 11 percent of the average total trip expenses. Gear expenditures per angler trip ranged from \$0.0 to \$200.00, with more than 78 percent of the anglers reporting that they spent \$10.00 or less per trip on gear (Figure 23). It is quite likely that gear expenditures in excess of \$50.00 reported for the trip sampled represent purchases with an expected life greater than one trip, but happened to be purchased in preparation for this particular trip. The average gear expenditure for boat owners/operators was \$20.55 per trip compared to \$8.34 per trip for non-owners.

⁵In the case of multi-day trips, an average daily outlay is calculated for each expense item. It is assumed that the amounts of the expenditures reported are what the angler typically spends on each representative billfish angling trip.

Bait is another trip expense, averaging \$2.21 per angler trip, 2 percent of the average total trip cost. The bait expense ranged from \$0.0 to \$60.00 per angler trip, with over 88 percent of the anglers spending \$5.00 or less on bait per trip (Figure 24). Boat owners/operators spent an average of \$3.60 per trip on bait verses \$.68 for non-owners.

Miscellaneous trip expenses averaged \$15.66 per angler trip, 12 percent of the average total trip expenses. Eighty percent of the anglers reported miscellaneous expenses of \$25.00 or less per trip; the high was \$500.00, probably not a typical amount (Figure 25).

Finally, a question was asked inquiring how much was spent on overnight lodging in conjunction with the fishing trip of interest. Only six individuals interviewed (3 percent of the sample) reported lodging costs. This finding tends to support a priori expectations that billfish angling off southern California is primarily a local activity; non-residents would likely be the guests of the boat owner/operator who would also provide overnight accommodations. This would tend to be consistent with the non-commercial nature of the activity discussed above.

When the typical trip expenses are aggregated, the average total trip expenditure is \$131.79 per angler per trip, with over 50 percent of the anglers indicating that they spent no more than \$100.00 per trip; the high was \$850.00 per trip. As expected, boat owners/operators spent significantly more per trip, \$181.15 average, than non-owners who averaged \$77.76 per trip. Results from the survey indicate that the average number of anglers per trip was 3, ranging from 1 to 7. With 3 anglers per trip, and an average total trip expenditure of \$131.79 per angler, the total trip expenditure is estimated to be \$395.37. A breakdown of the total trip expense by individual item is shown in Figure 26.

Trip Satisfaction Aspects

Several questions were asked pertaining to satisfactions aspects of the current billfish angling trip and the alternate recreational activity in which the angler would likely engage if the billfish angling option were not available.

The first question dealt with the degree of satisfaction the angler derived from the just-completed trip. Possible responses and the corresponding proportion of the total number of anglers choosing that response included: very satisfied, 63 percent; somewhat satisfied, 20 percent; not too satisfied, 9 percent; not at all satisfied, 6 percent; and, did not know, 2 percent.

Anglers were then queried as to the primary reason for their satisfaction or dissatisfaction. Possible responses with corresponding proportions of the total number of anglers selecting that response included: number of fish, 53 percent; size of fish, 3 percent; species of fish, 4 percent; congestion on the fishing grounds, 2 percent; other, 36 percent; and, did not know, 2 percent.

When asked how likely he/she would be to engage in some alternative, away-from-home, recreational activity if for reasons beyond his/her control the angler was unable to go billfish angling, the possible responses with corresponding sample proportions included: very likely, 58 percent; somewhat likely, 5 percent; not too likely, 6 percent; not at all likely, 27 percent; and, did not know, 4 percent.

The question on the likelihood of engaging in some alternative recreational activity if unable to angle for billfish was followed up with questions concerning the nature of alternative recreational activity. Anglers were asked the general location of the alternative activity: 30 percent indicated that it would probably take place in the marine environment; 13 percent indicated an area removed from the marine environment; while 57 percent did not know where the alternative would likely take place.

Finally, anglers were asked the likelihood of a boat being used in the alternative recreational activity; 21 percent expressed that it would be very likely that a boat would be used in the alternative activity; 2 percent indicated that it would be somewhat likely; 1 percent that it would be not too likely; 15 percent that it would be not at all likely; and, 61 percent did not know.

SUMMARY AND DISCUSSION

From the survey results presented in the preceding sections, it is possible to develop an aggregate southern California billfish angler and trip profile. The profile uses the average values of the variables used to describe the economic aspects of billfish angling off southern California, and the most frequent responses for discreet or categorical variables used to characterize the billfish angler, or other aspects of the billfish angling experience. Under these conditions, the representative southern California billfish angler:

- is a 45 year old male with almost 14 years billfish angling experience who makes 14 billfish trips annually off southern California and catches approximately three billfish.
- is pursuing a livelihood that earns him in excess of \$35,000 annually.
- has almost \$1,700 invested in saltwater angling equipment.
- on each trip he spends approximately \$74 for fuel, \$15 for food and beverages, \$15 for gear, \$2 for bait and \$16 for miscellaneous items.
- whose trip satisfaction is primarily related to the number of fish caught.

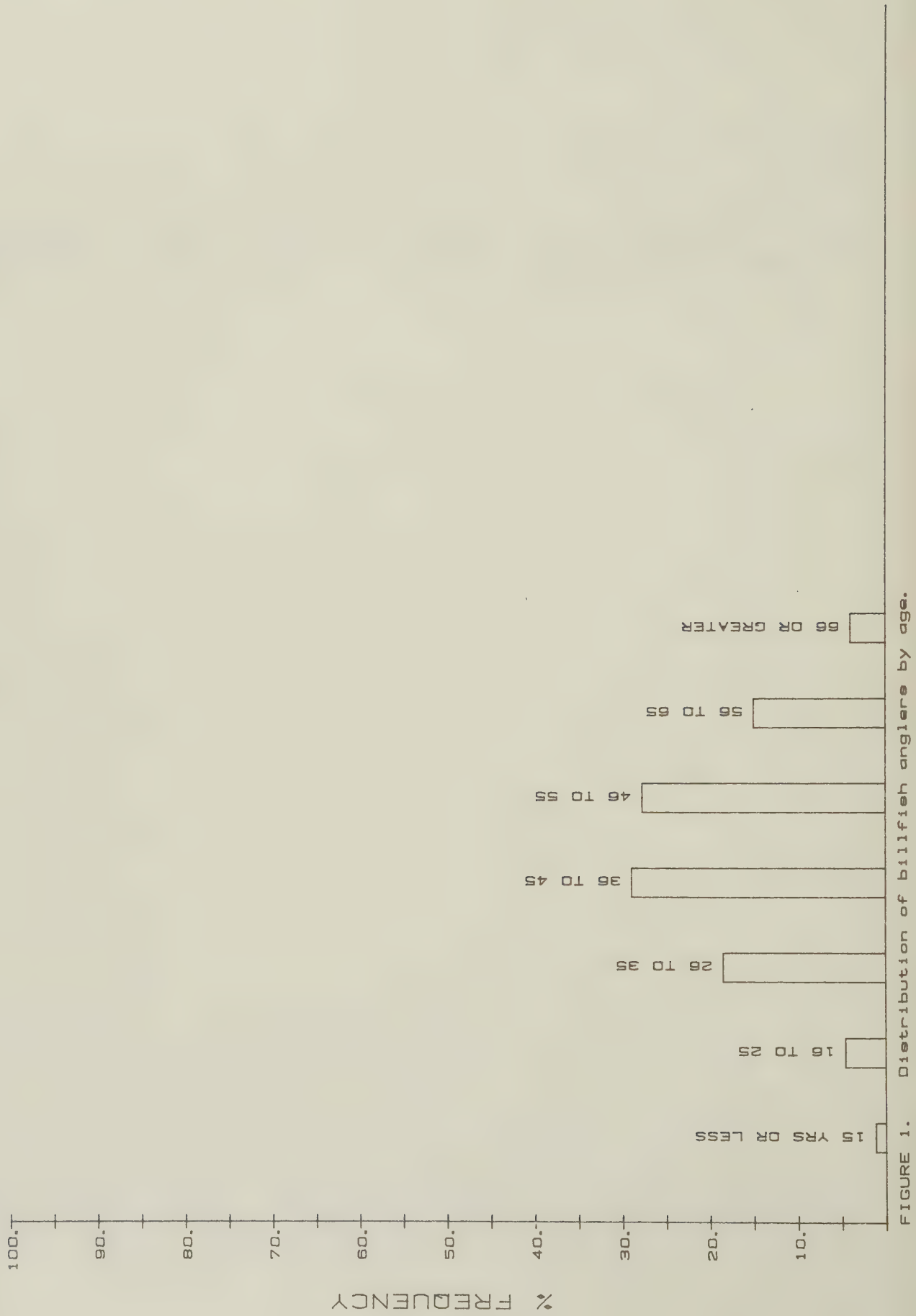
Characteristics of boat ownership are not incorporated into this profile since information pertaining to the proportion of boat use devoted to billfish angling was not available from the survey.

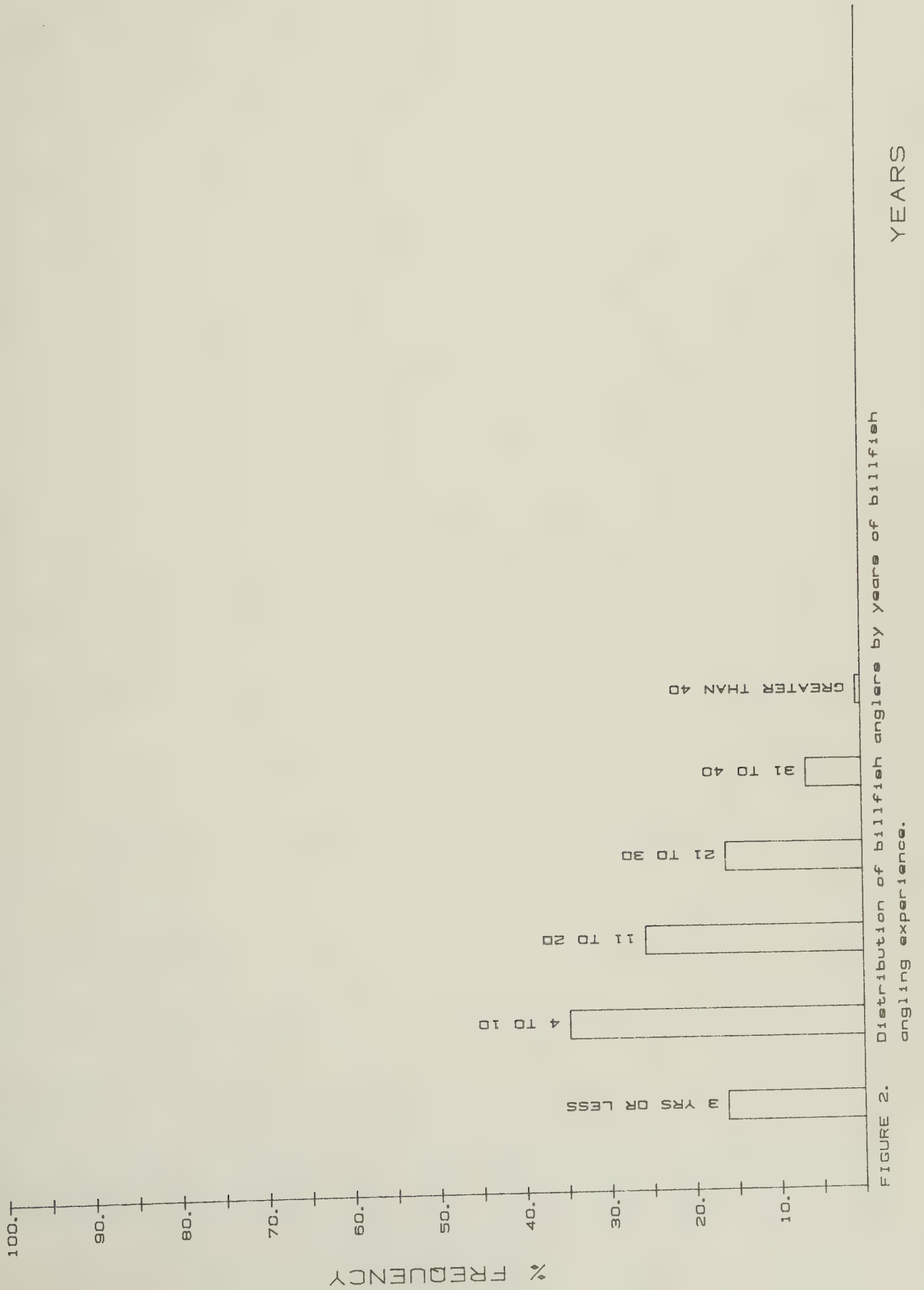
Preliminary estimates for 1982 place the total southern California recreational billfish catch at approximately 1,100 fish, and the catch rate at 0.105 fish per angler per day.⁶ Assuming that the typical angler trip is one day in length, the corresponding number of angler trips is 10,476 which at three anglers per trip converts to 3,492 trips taken off southern California during 1982. At an average trip cost of \$395, this amounts to aggregate trip expenditures of approximately 1.4 million dollars for 1982.

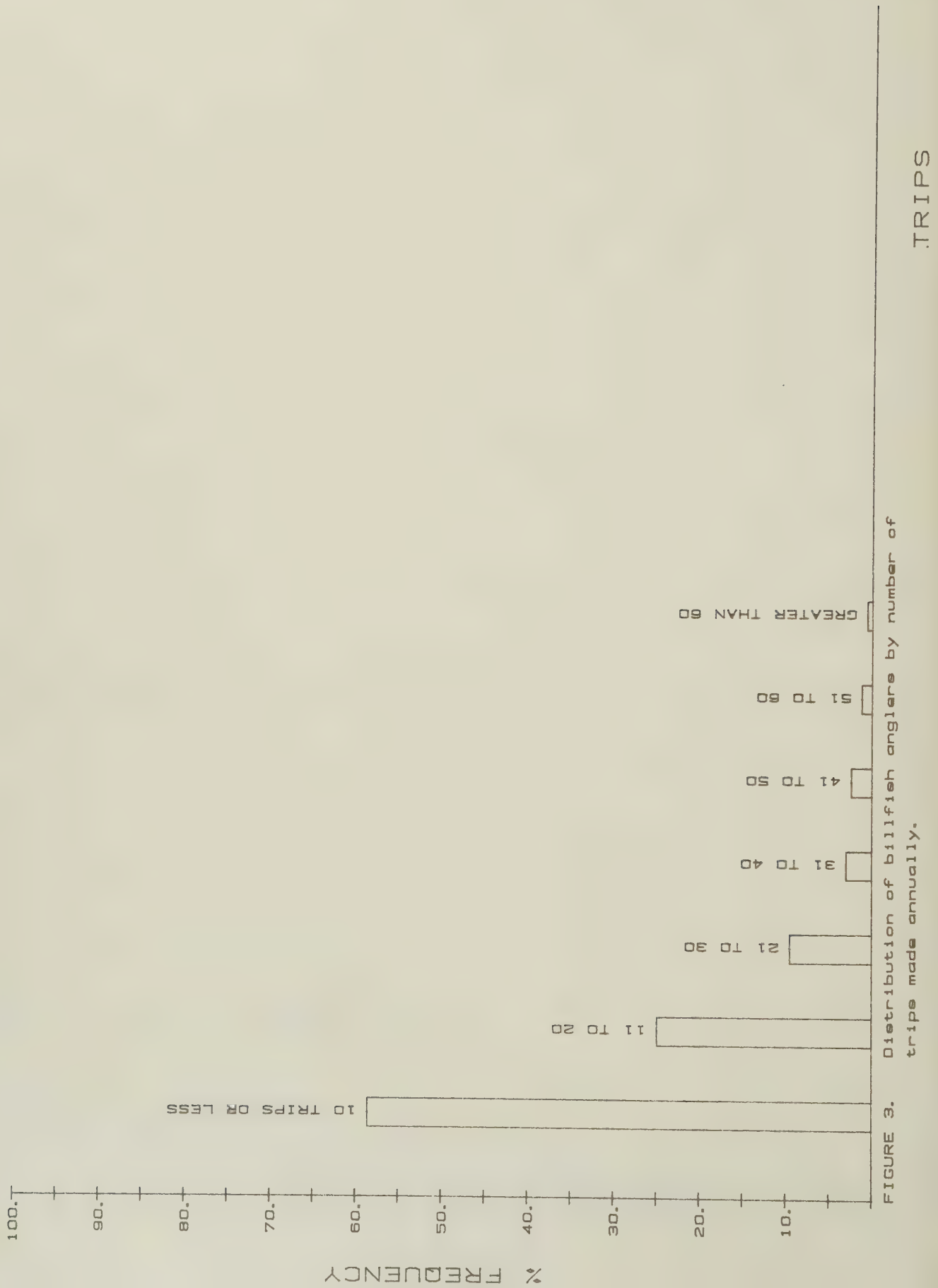
⁶Early returns from the 1982 Pacific International Billfish Angler Survey which is conducted annually by the Southwest Fisheries Center, National Marine Fisheries Service, La Jolla, California.

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Stuart, A. 1968. Basic Ideas of Scientific Sampling. Charles Griffin and Company Limited, London.







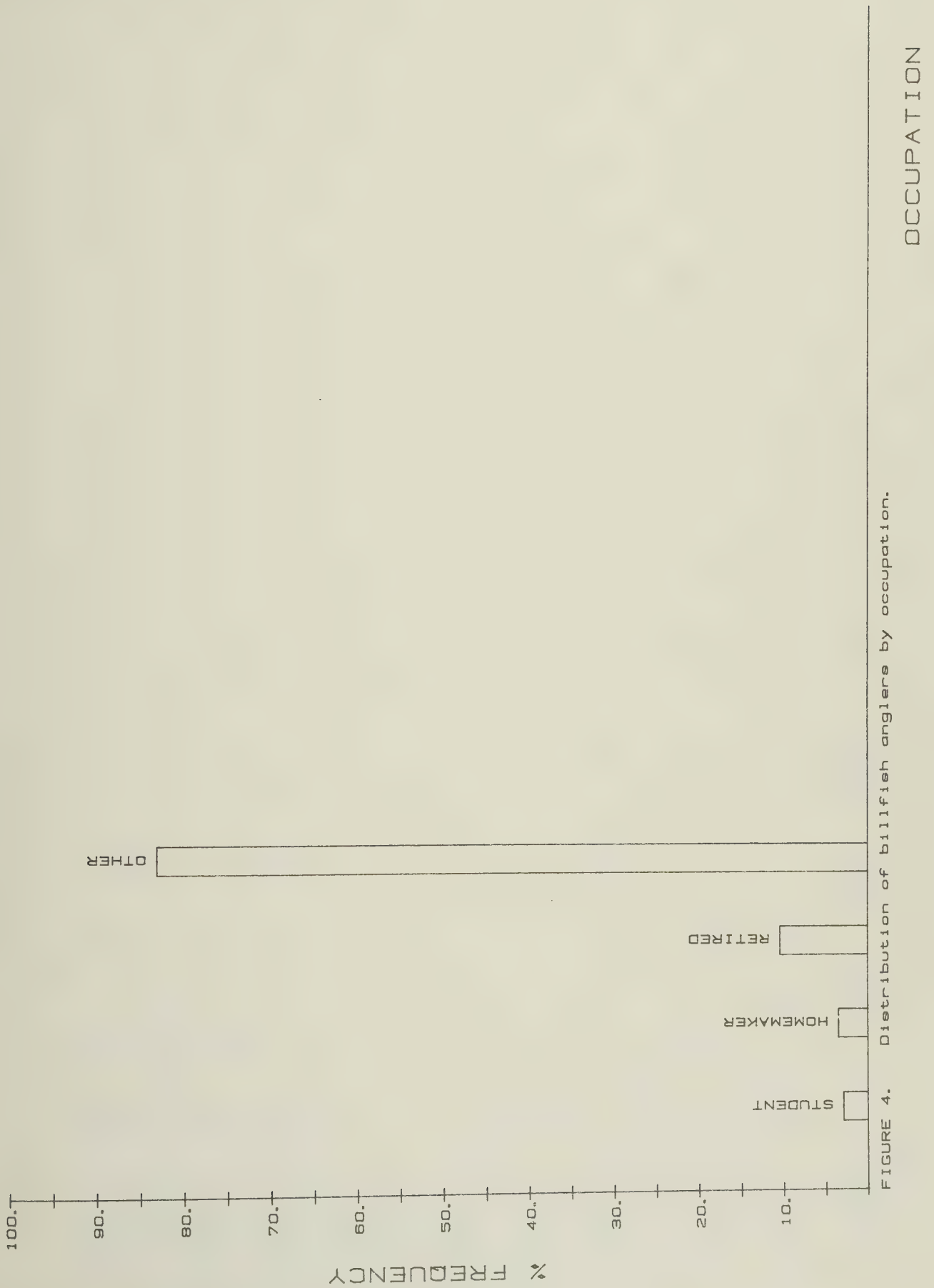


FIGURE 4. Distribution of billfish anglers by occupation.

MORE THAN \$35,000

\$25,001 TO \$35,000

\$15,001 TO \$25,000

\$10,000 TO \$15,000

LESS THAN \$5,000

100.

90.

80.

70.

60.

50.

40.

30.

20.

10.

% FREQUENCY

FIGURE 5. Distribution of billfish anglers by annual income.

INCOME \$

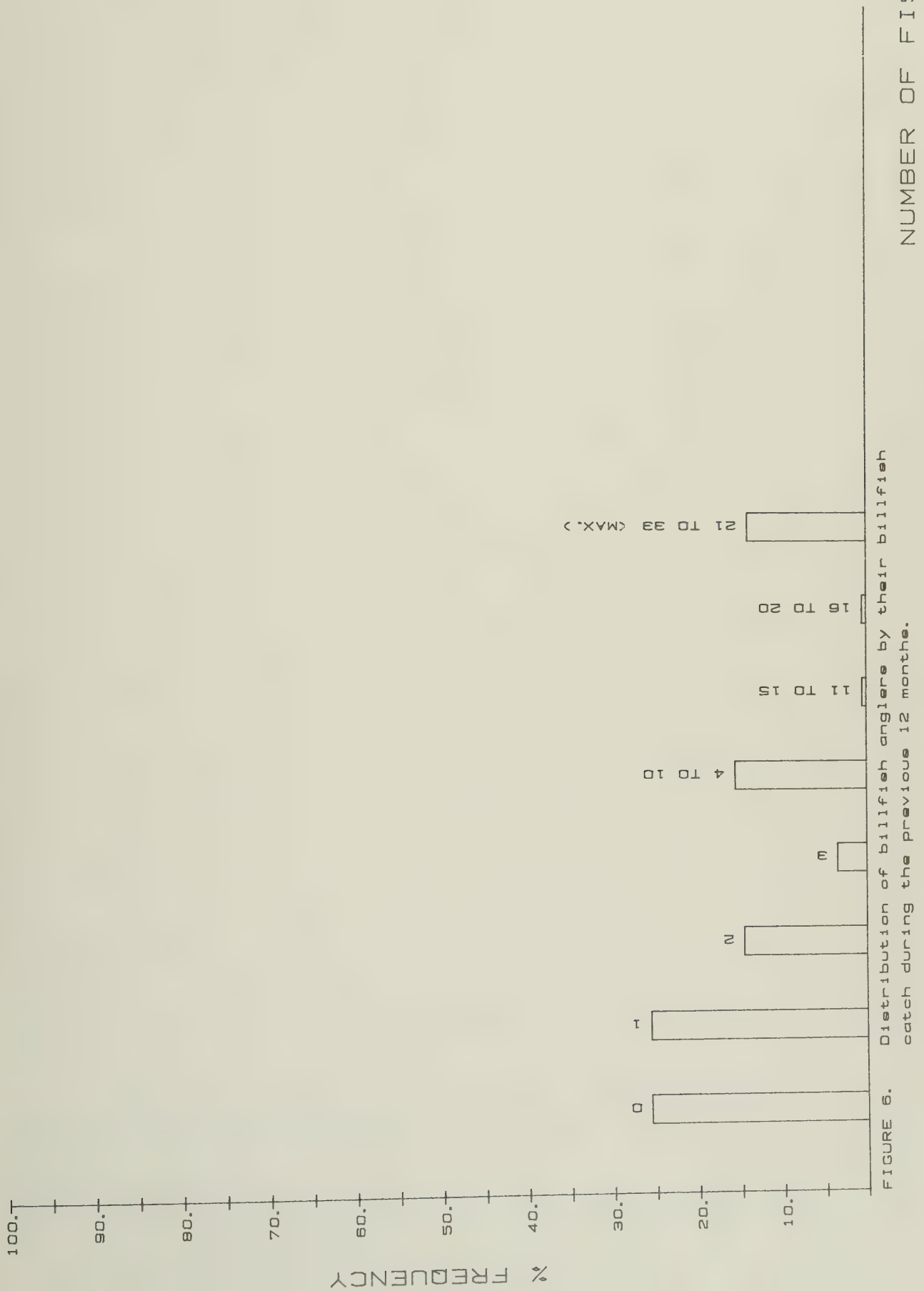


FIGURE 7. Distribution of billfish anglers owning boats by number of boats owned.



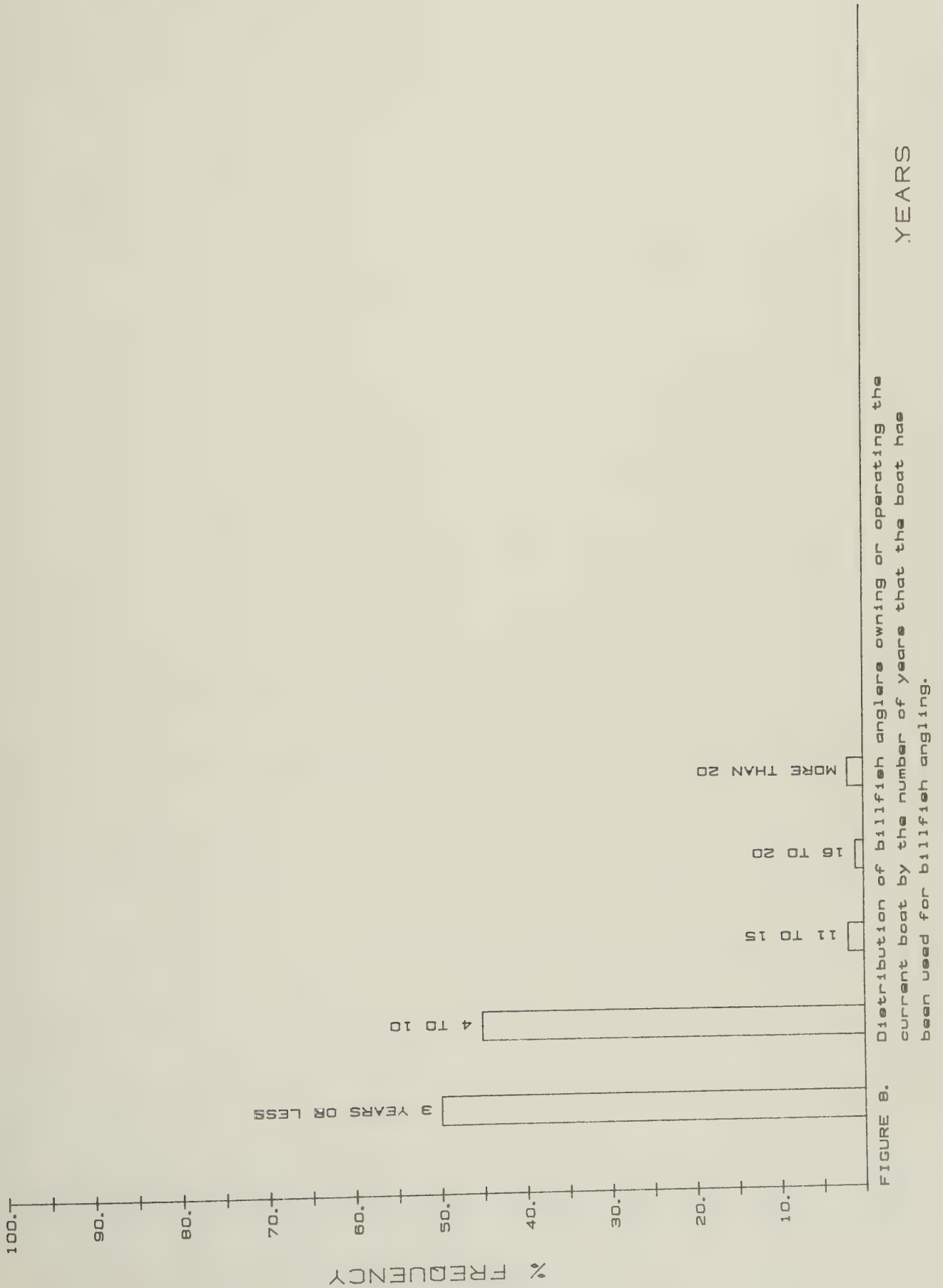


FIGURE 8. Distribution of billfish anglers owning or operating the current boat by the number of years that the boat has been used for billfish angling.

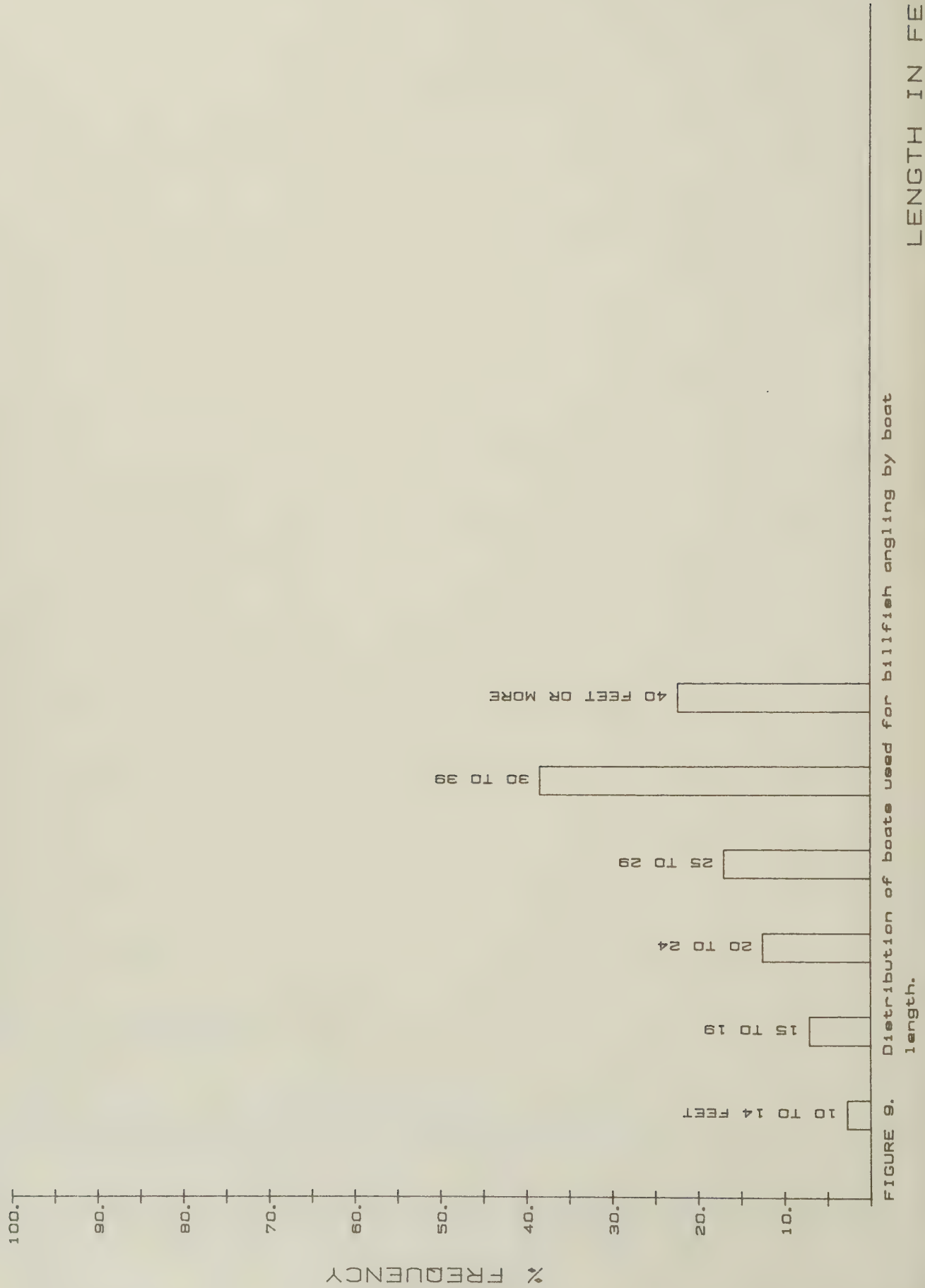


FIGURE 9. Distribution of boats used for billfish angling by boat length.



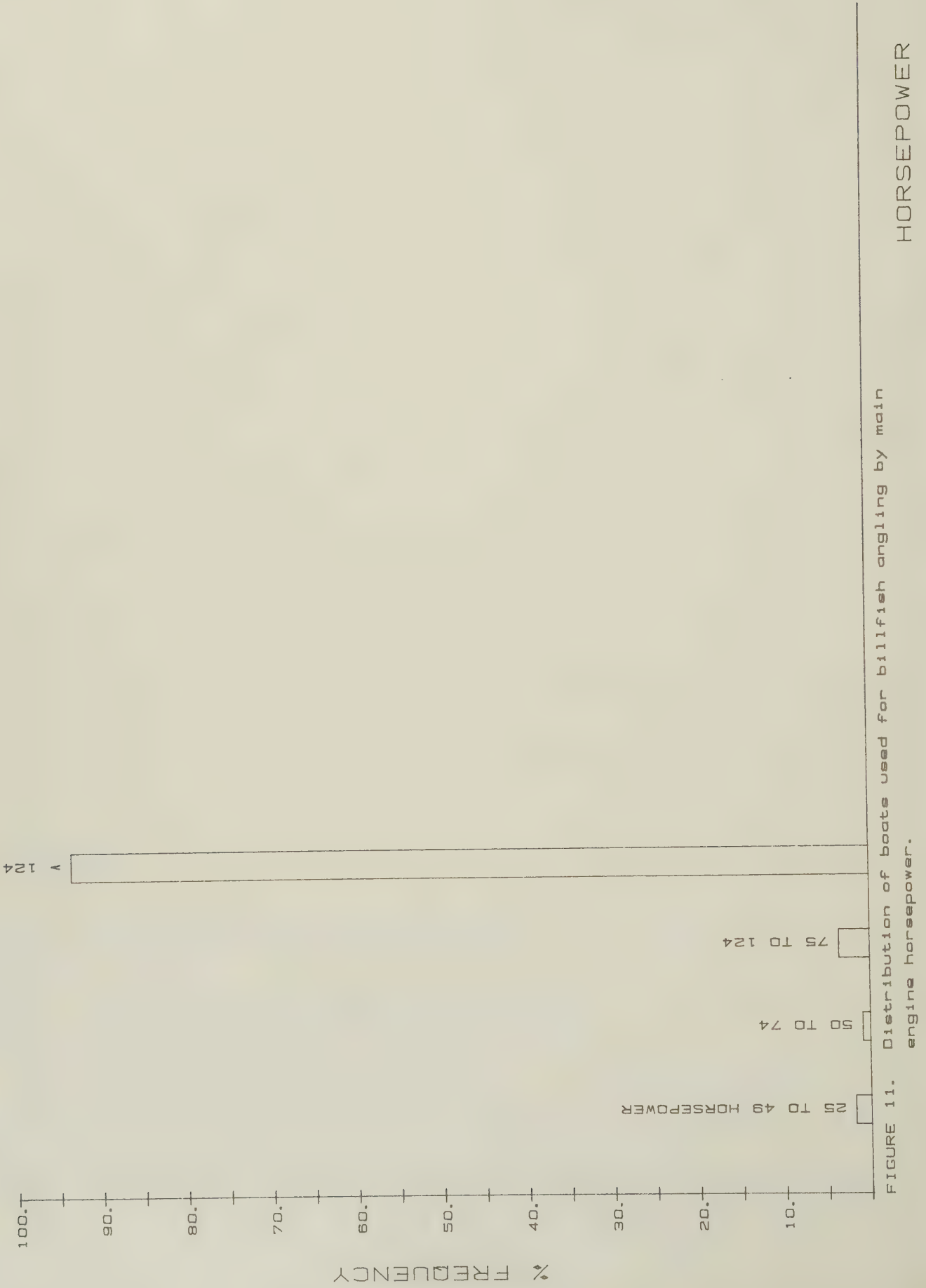
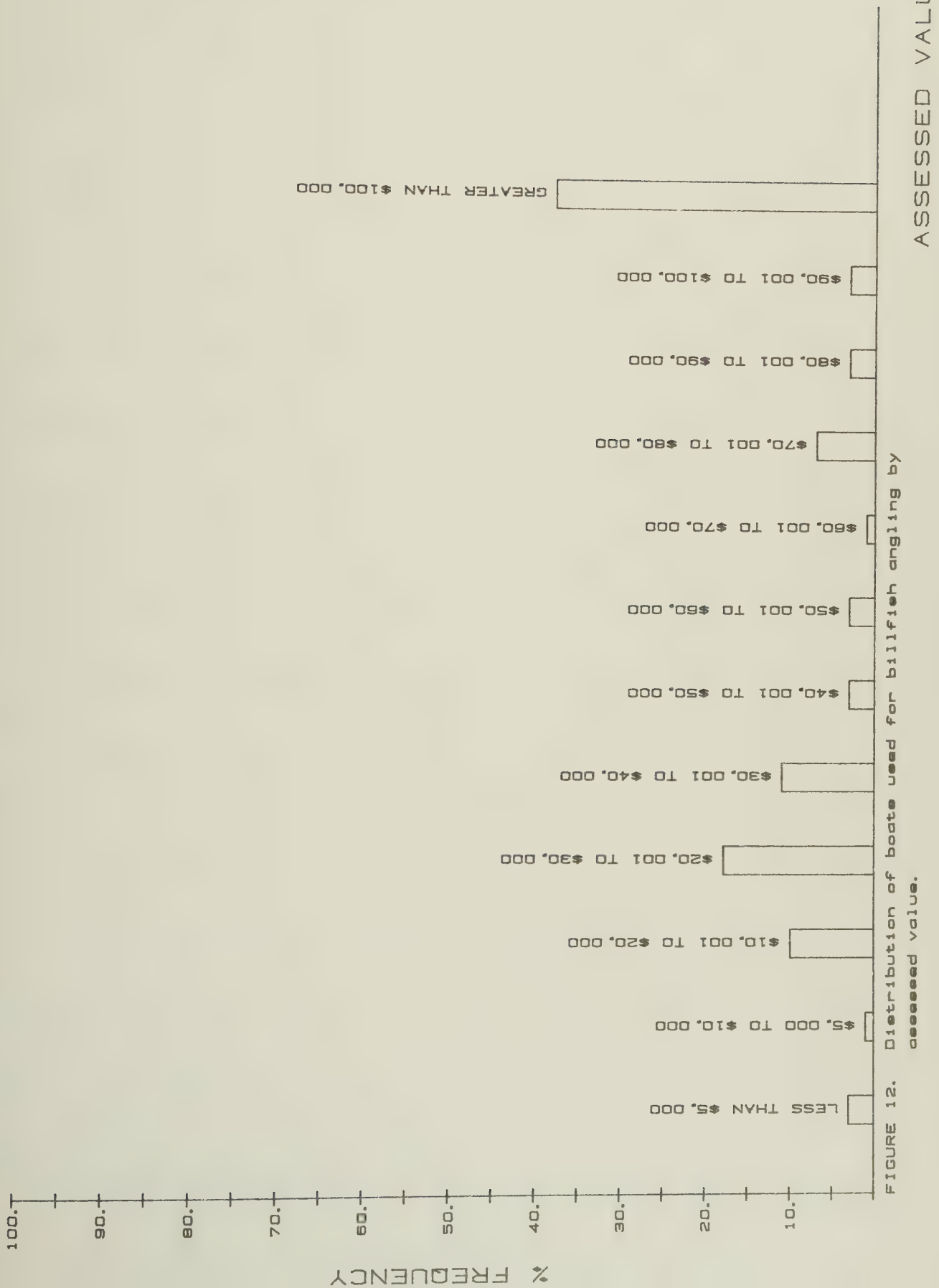


FIGURE 11. Distribution of boats used for billfish angling by main engine horsepower.



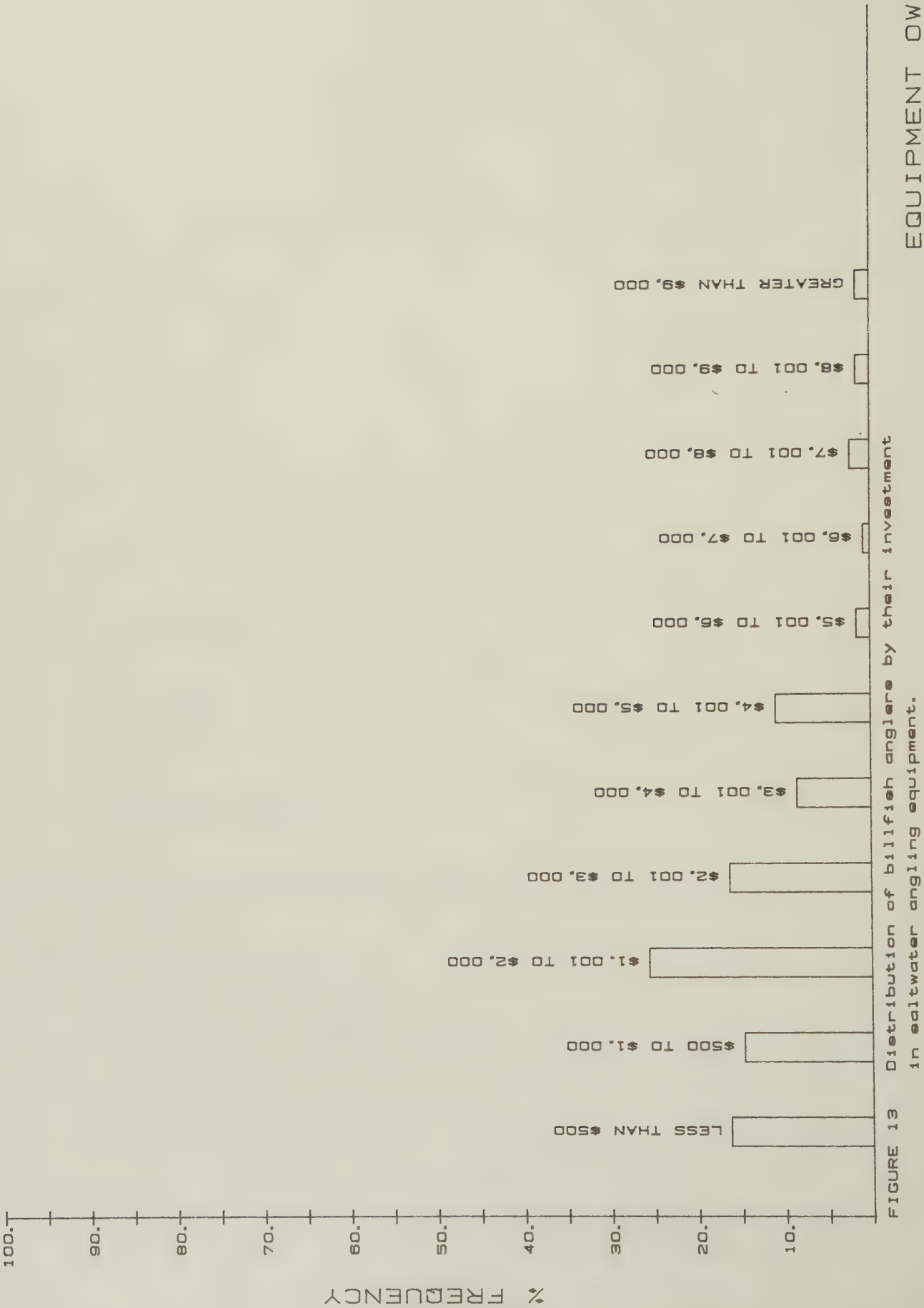
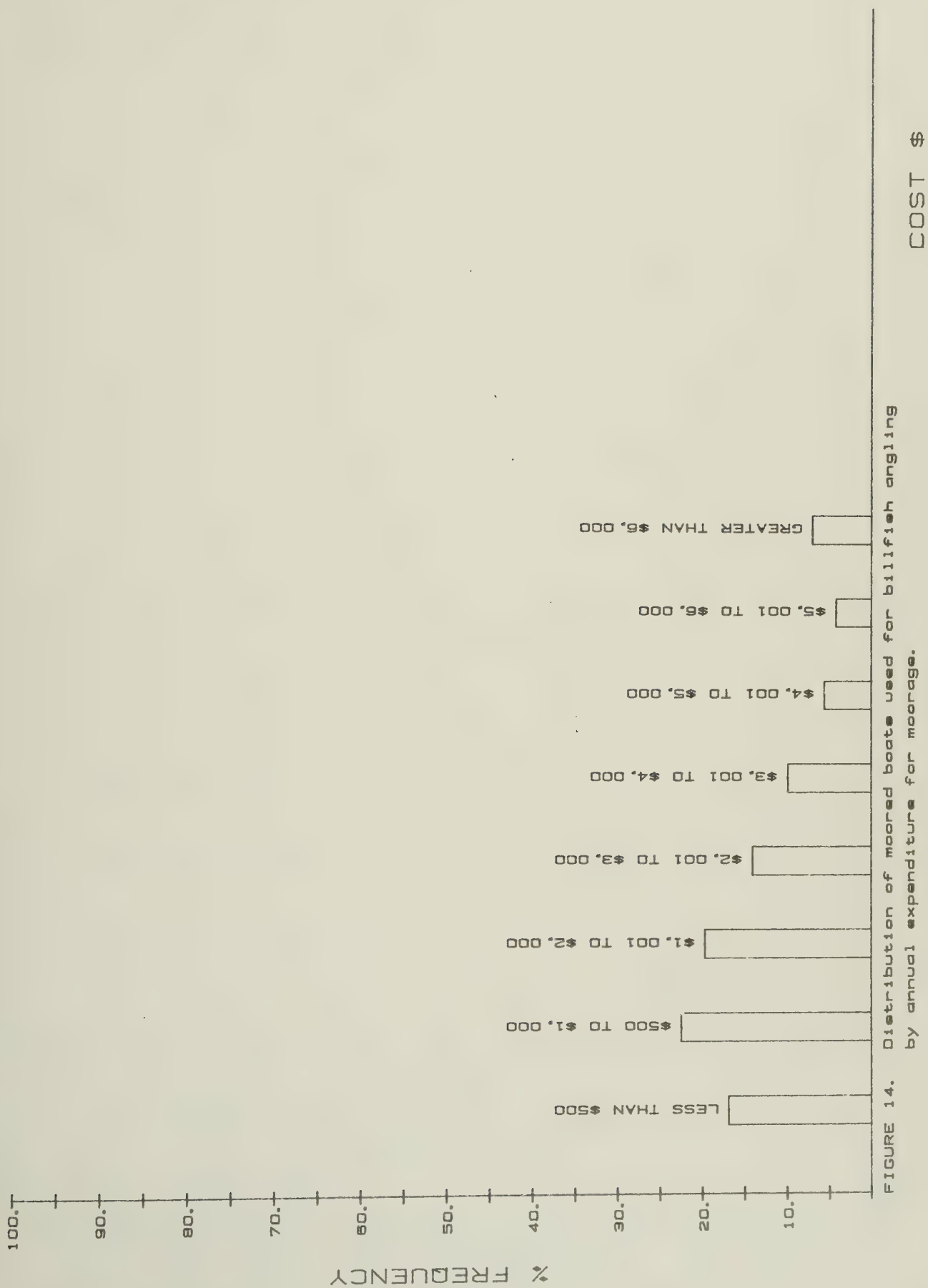
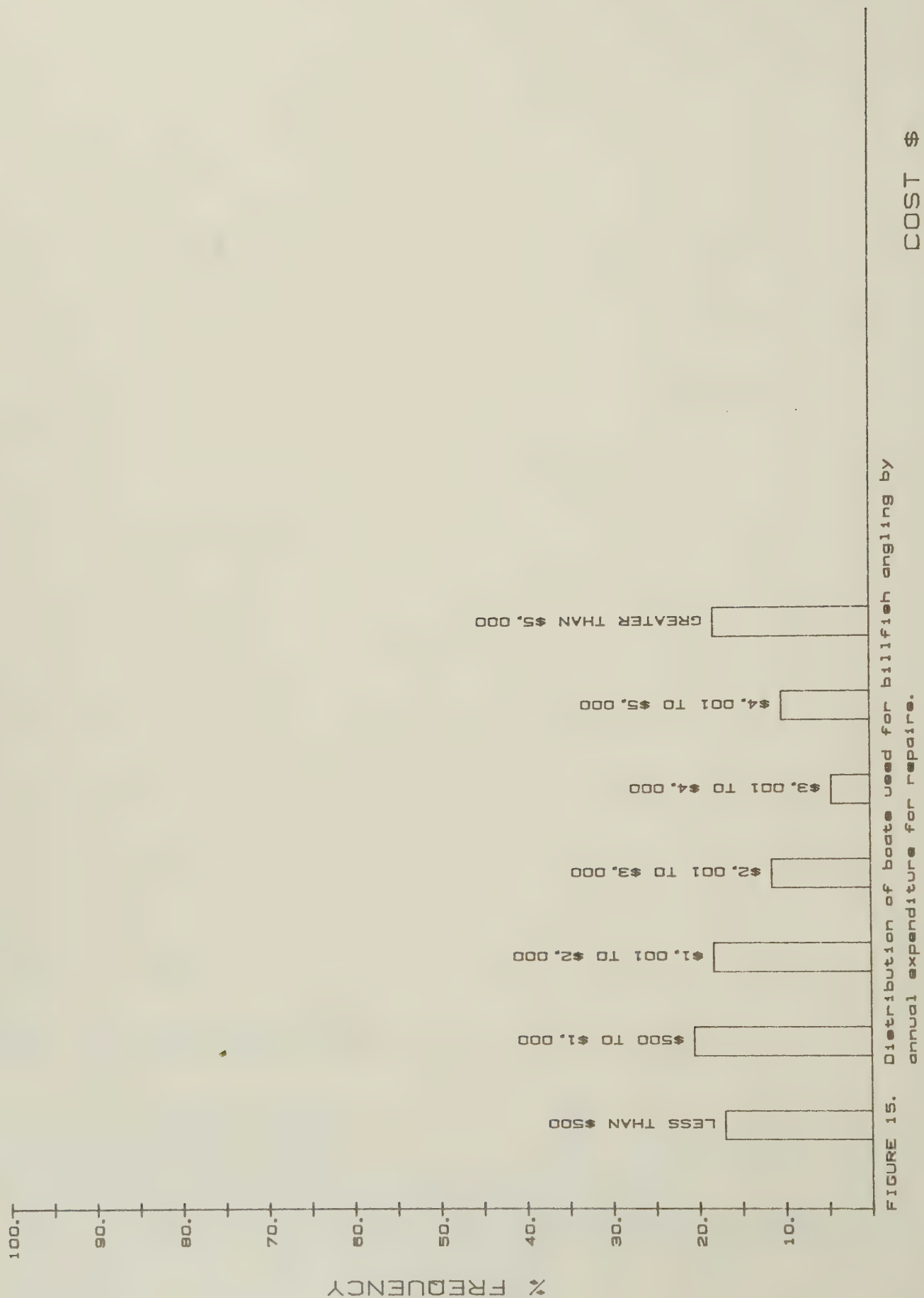
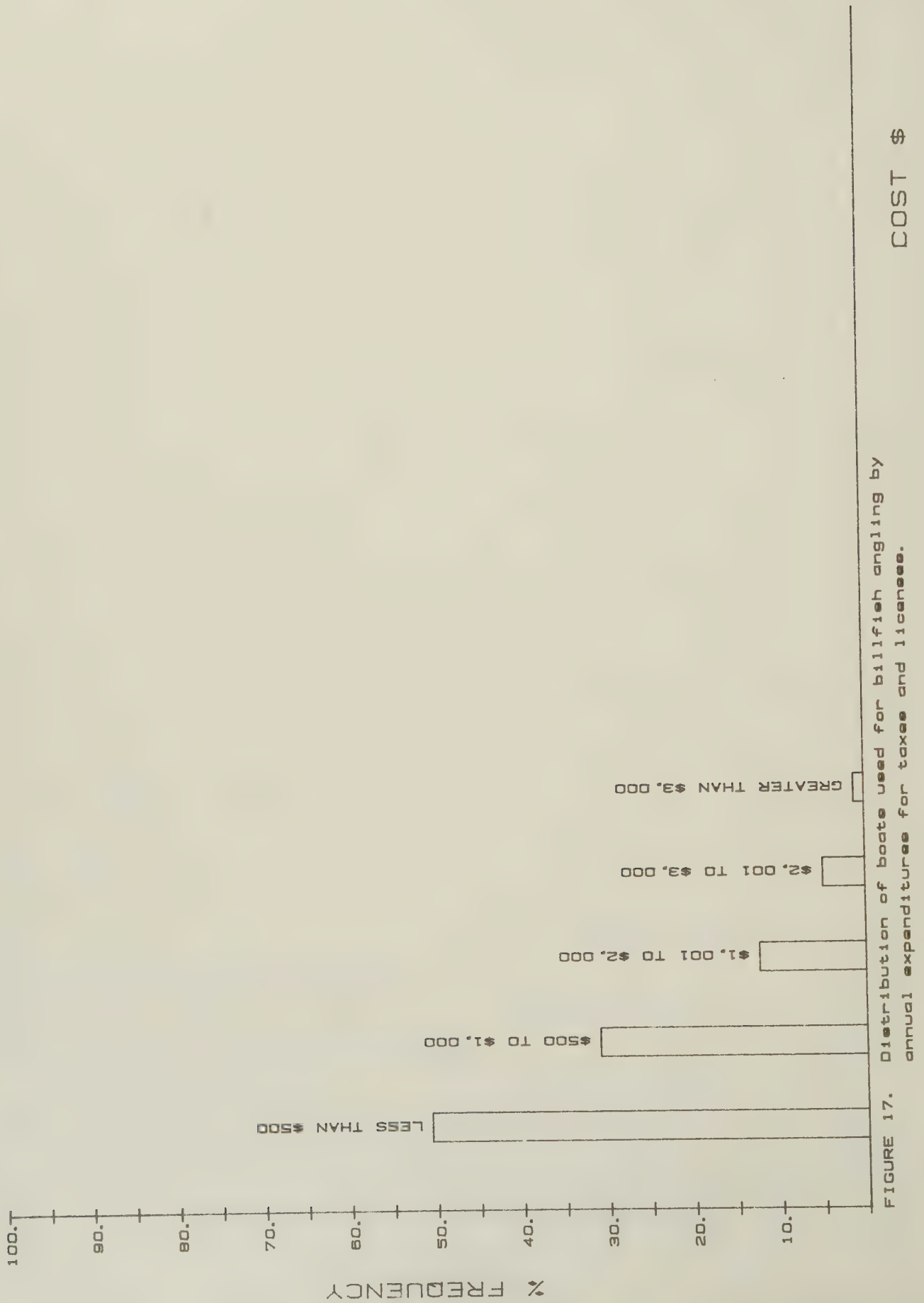


FIGURE 13 Distribution of billfish anglers by their investment in saltwater angling equipment.









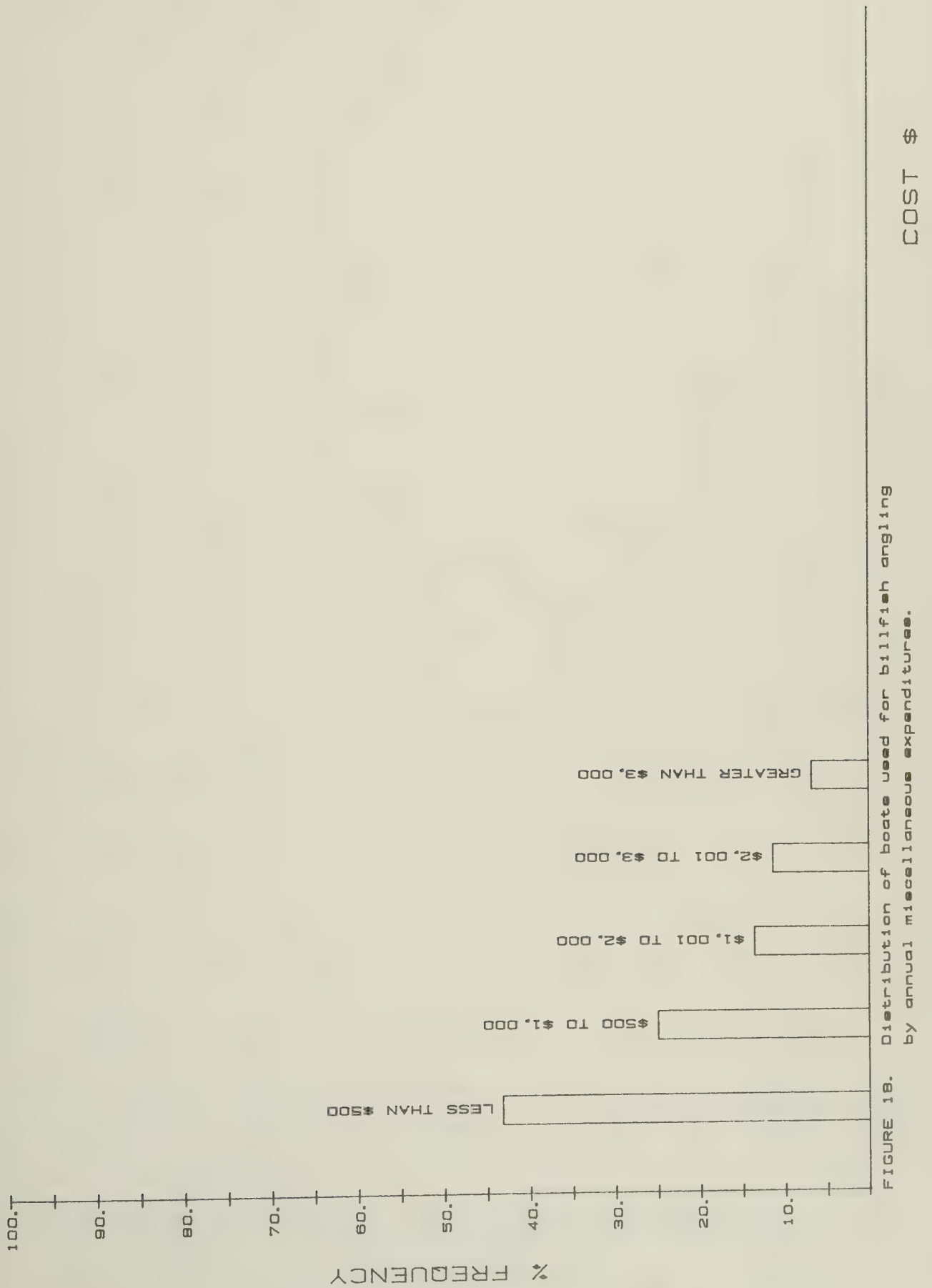
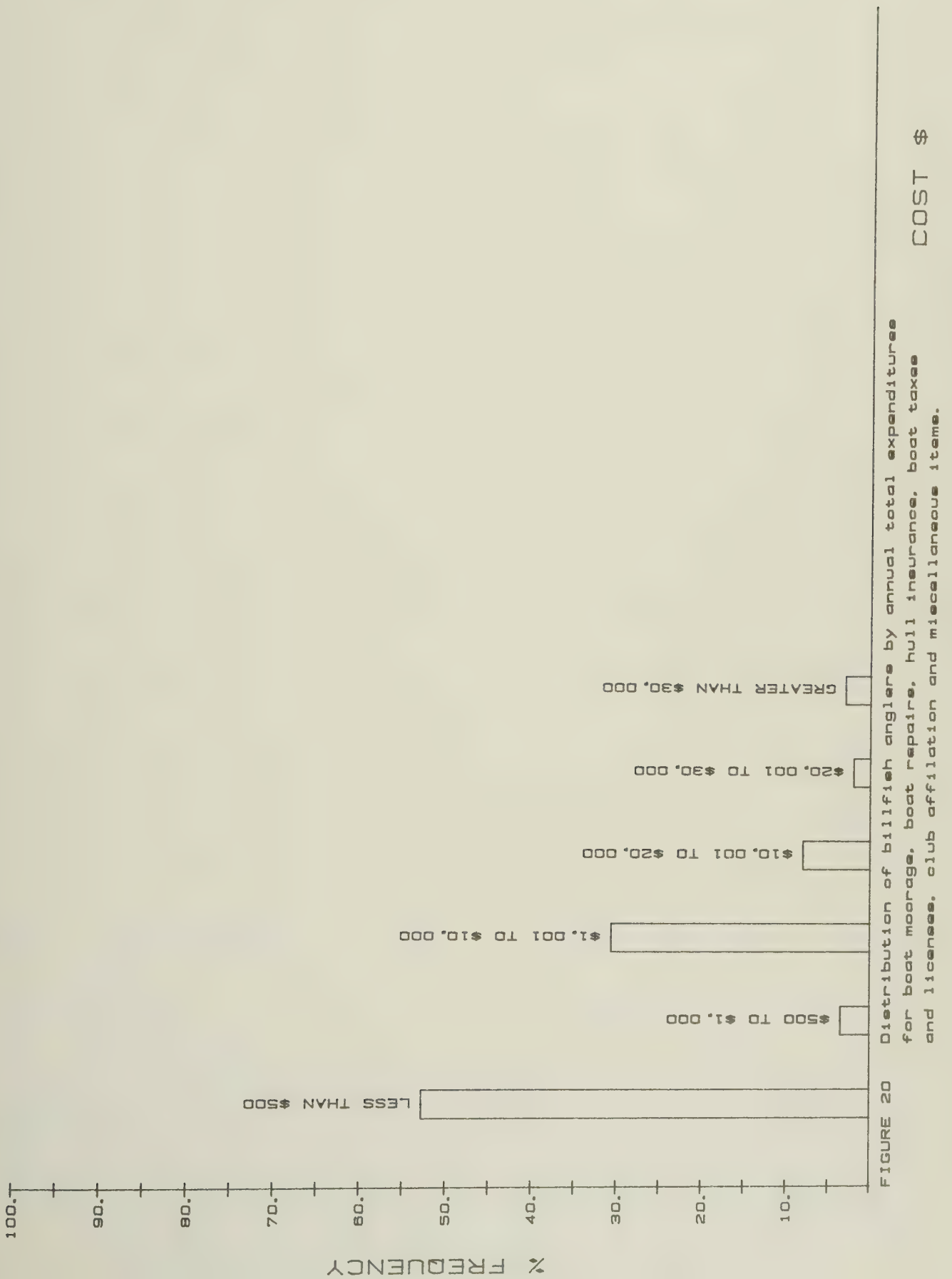
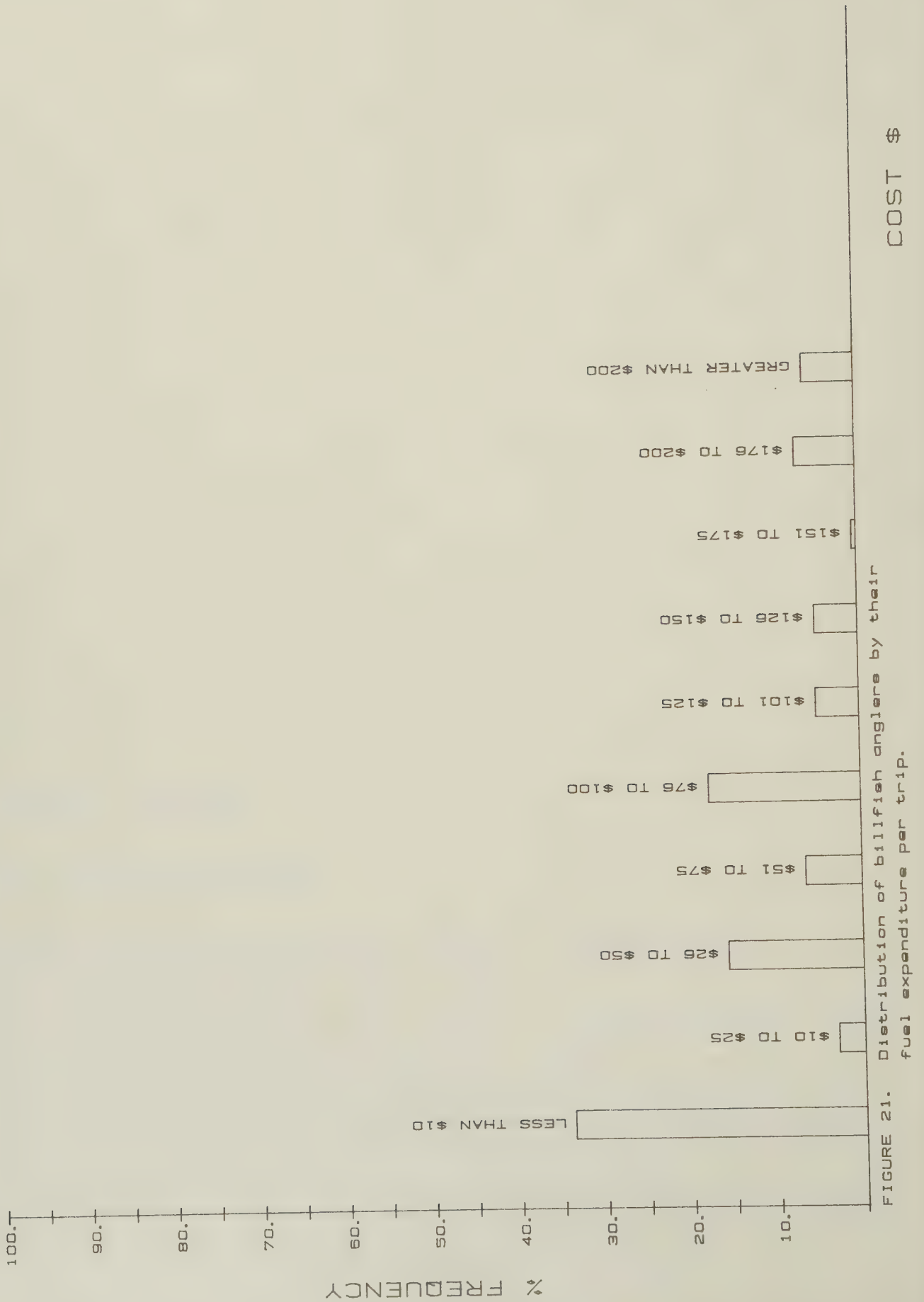
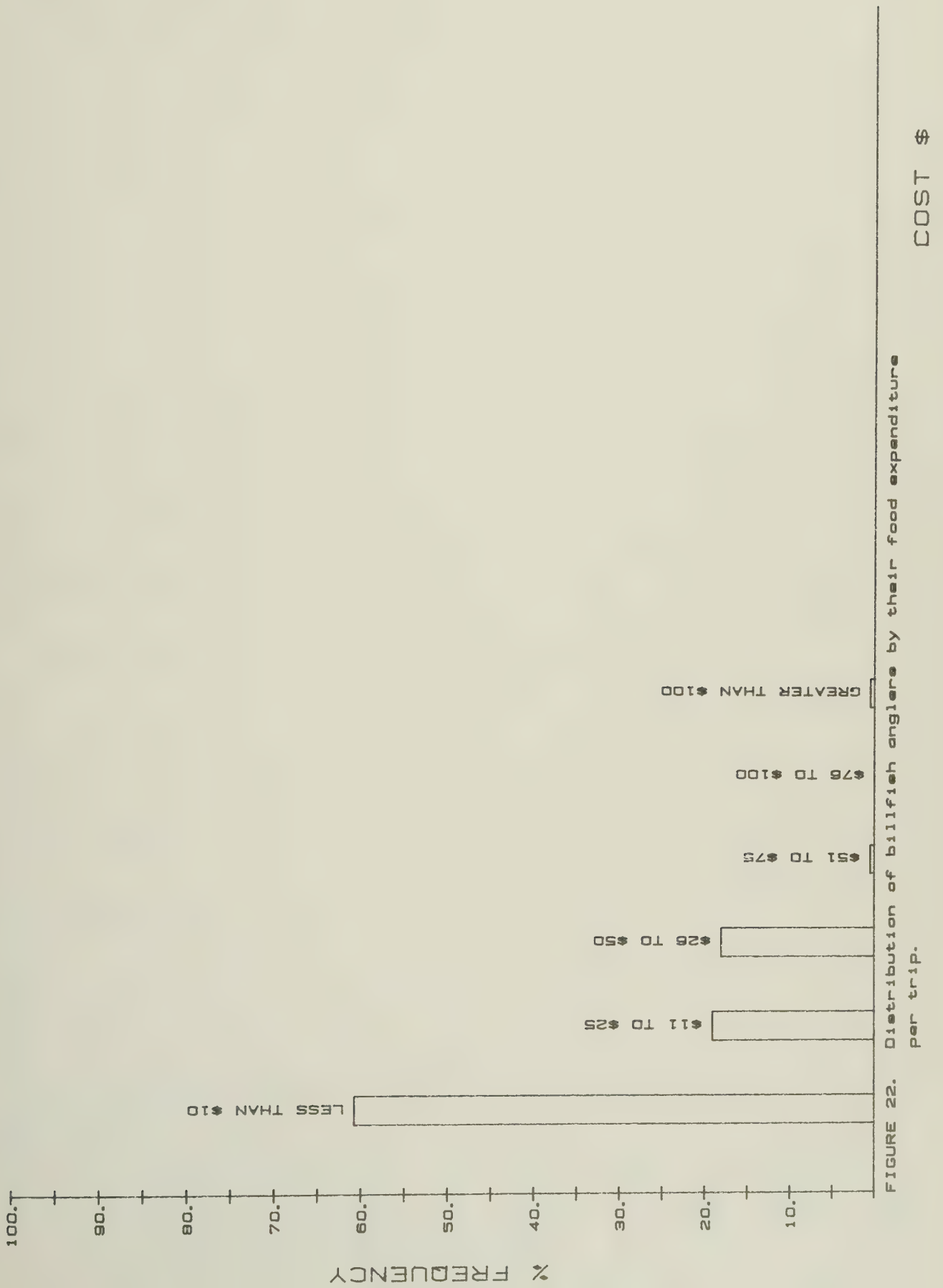




FIGURE 19. Distribution of angling club members by their annual club-related expenses.







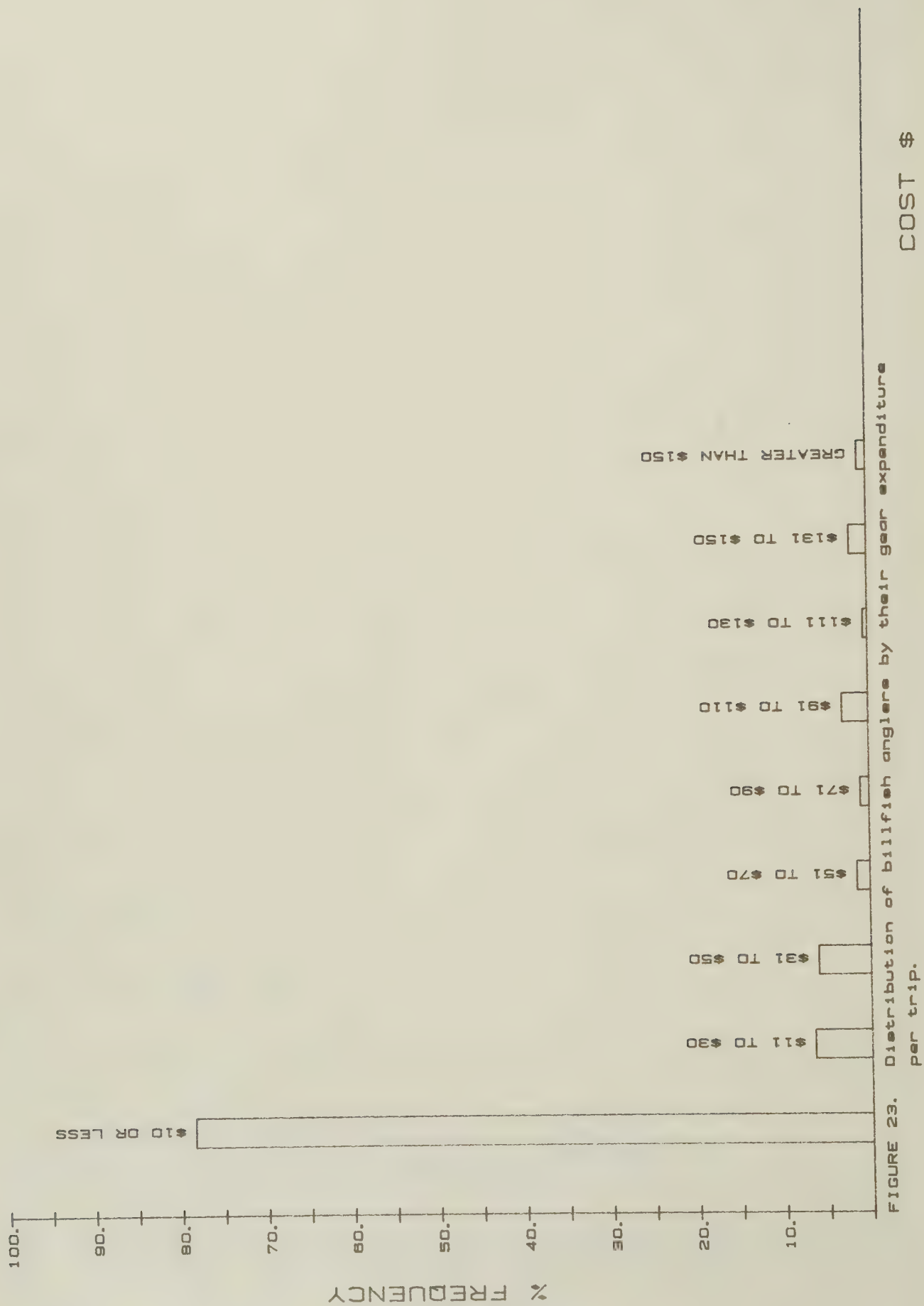
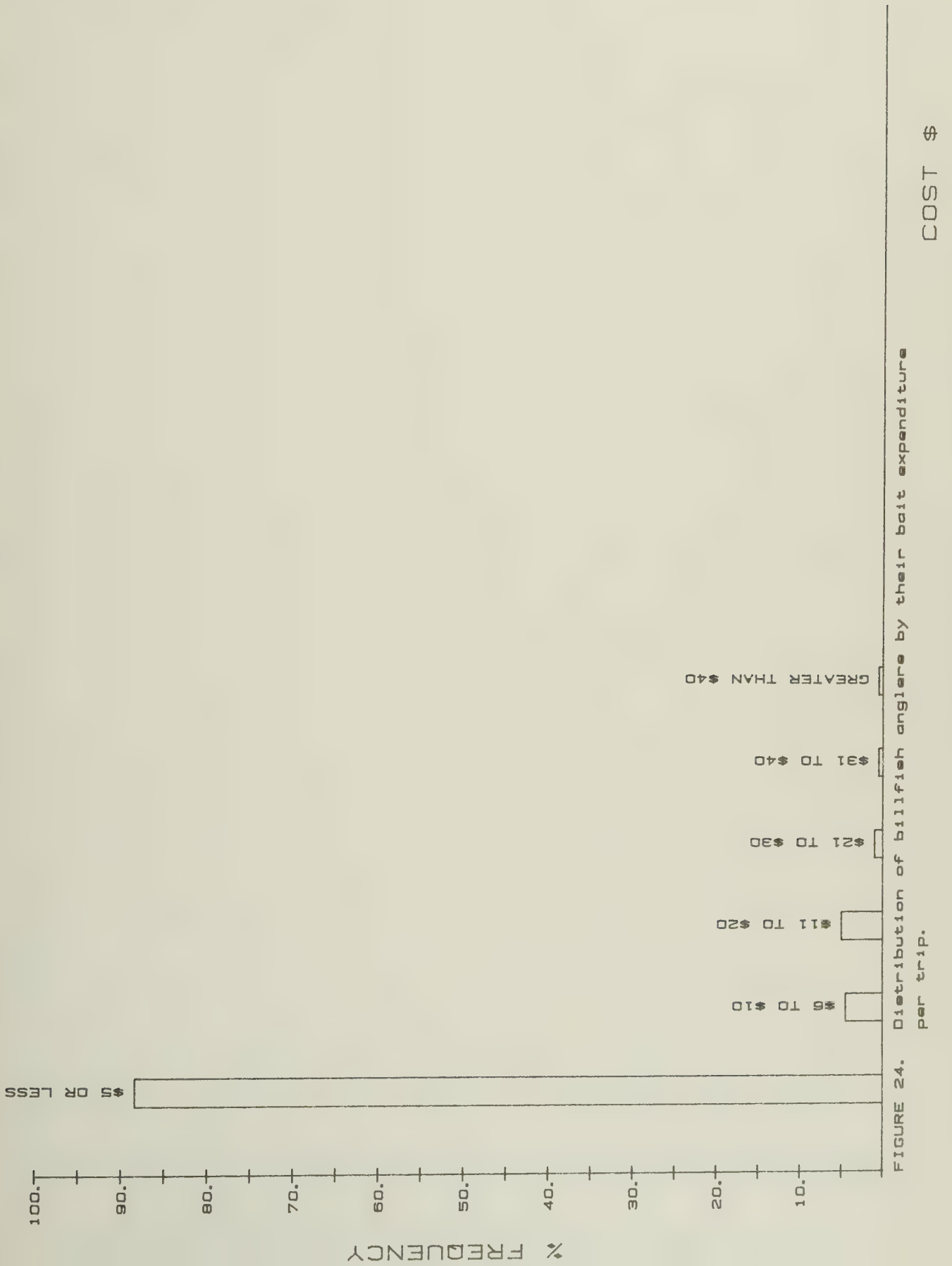
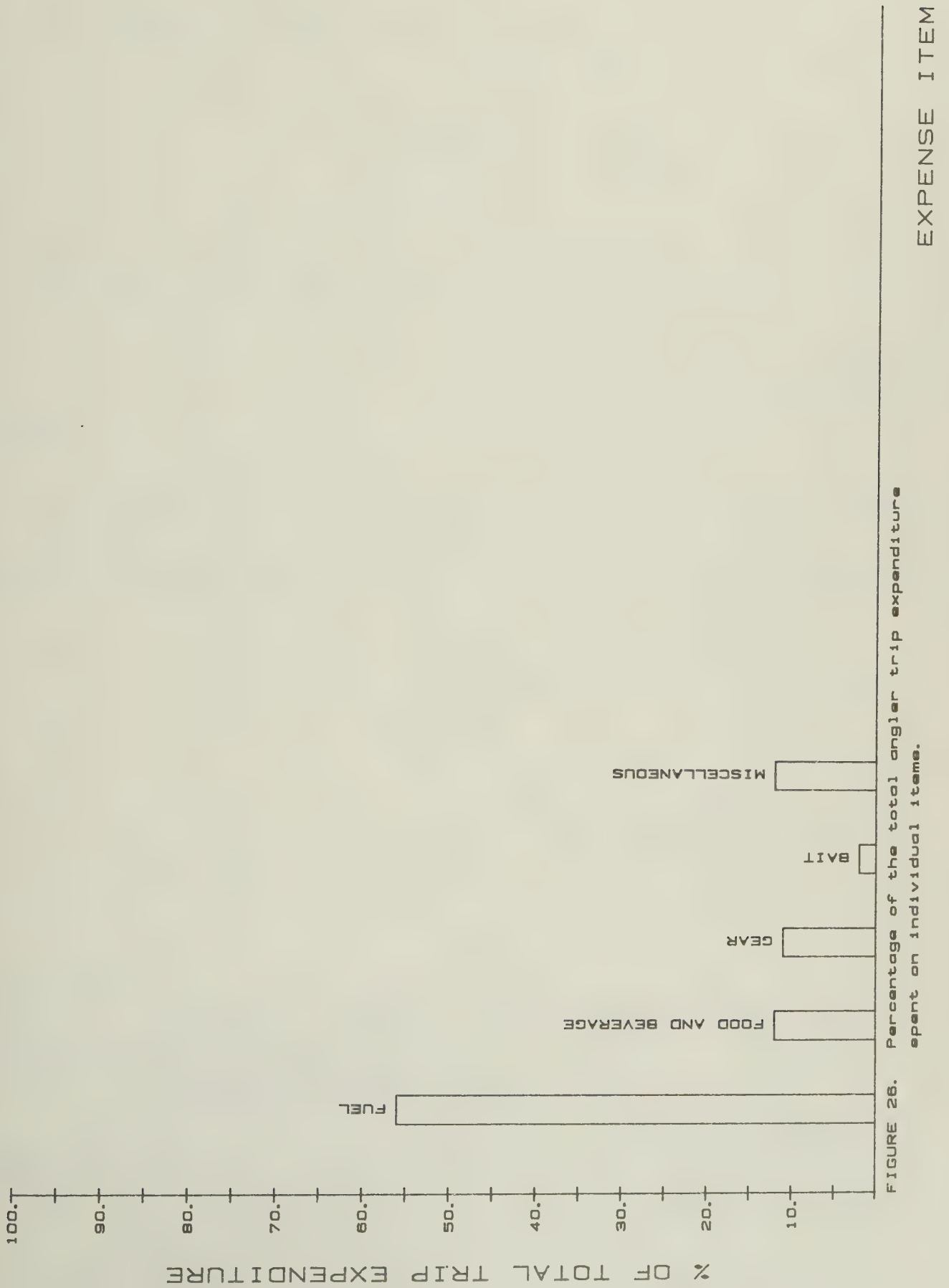


FIGURE 23. Distribution of billfish anglers by their gear expenditure per trip.







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APPENDIX

SOUTHERN CALIFORNIA BILLFISH SOCIOECONOMIC SURVEY

1. Interview Number: Consecutive number of this interview for the day.
2. Interviewer Number: Three-digit interviewer code.
3. Date
4. Time of Interview: Time interview was conducted (24-hour clock)
5. State: State code where interview took place.
6. County: County code where interview took place.
7. Site: Site code where interview took place.
8. Sex of Respondent: Male = 1, Female = 2, Unable to determine = 3.
9. Mode of Fishing: Man-made Structure = 1, Beach/Bank = 2, Party/charter boat = 3, Private/rental Boat = 4

10. Did you come here today to fish for any particular type, variety of species of fish?

Enter common name (name used by fisherman) and species code. If none, enter none.

11. Interview Status: Agrees to be interviewed = 1, Nonresponse due to language barrier = 2, Refuses to be interviewed = 3.
12. How old were you on your last birthday? Enter number. Don't Know = 98, Refused = 99
13. How many people counting yourself are fishing together today? Enter number. Don't Know = 98, Refused = 99
14. How many years have you been going recreational billfishing? Enter number.
15. Including today approximately how many times during the last 12 months have you gone recreational billfishing?

Enter number.

- 16a. How many boats, if any, are now owned by you or members of your household? Enter number.

Don't Know = 98, Refused = 99

- 16b. Is your boat transported on a trailer or permanently moored? Moored = 1, Carried on a trailer = 2

- 16c. Approximately, what is the length, in feet, of that boat? (DO NOT READ LIST. USE LIST TO PROBE, IF NECESSARY)
INTERVIEWER: RANGES INCLUDE FRACTIONS UP TO .99, I.E., CATEGORY "2" INCLUDES BOATS UP TO 14.99 FEET IN LENGTH

Less than 10 feet=	1	20 to 24 feet=	4	40 feet or more=	7
10 to 14 feet=	2	25 to 29 feet=	5	Don't know=	8
15 to 19 feet=	3	30 to 39 feet=	6	Refuse=	9

- 16d. What (type/types) of (engine/engines) does your (primary) boat have?

Outboard=	1	Inboard jet=	4	Other=	6
Outboard jet=	2	Inboard/Outboard		Don't know=	8
Inboard=	3	(Inboard/Outdrive,		Refuse=	9
		I/O Stern Drive)=	5		

- 16e. How many engines, if any, does (your primary boat) have?

Enter number	Don't know=	8	Refuse=	9
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- 16f. What is the total horsepower of (this/these) engine(s)?

INTERVIEWER: RANGES INCLUDE FRACTIONS UP TO .99, I.E., CATEGORY "2" INCLUDES UP TO 14.99 HP.

Less than 5 hp=	1	25 to 49 hp=	4	125 hp or more=	7
5 to 14 hp=	2	50 to 74 hp=	5	Don't know=	8
15 to 24 hp=	3	74 to 124 hp=	6	Refuse=	9

- 16g. Is the engine gas or diesel?

Gas=	1	Diesel=	2	Code Engine Type
------	---	---------	---	------------------

17. I would like your best estimate of the total cost of the saltwater fishing equipment you personally now own. Include the costs of such things as rods and reels. Special clothing, tackle and other saltwater fishing equipment when they were new. Do not include the costs of any boat or boating equipment that you might own.

- 18a. How much did you spend for the purchase of fishing equipment specifically for this fishing trip? That would include such things as rods, line, hooks, sinkers, and scalers. ENTER AMOUNT TO NEAREST DOLLAR

- 18b. How much did you spend on bait for that fishing trip? ENTER AMOUNT TO NEAREST DOLLAR

- 18c. How much did you personally pay to fuel or operate the boat for this fishing trip? Do not include any launching fee ENTER AMOUNT TO NEAREST DOLLAR

- 18d. How much did you personally spend for food, beverages and ice for this fishing trip? ENTER AMOUNT TO NEAREST DOLLAR

- 18e. How much, if anything, will you spend on the processing, packaging, shipping and/or mounting of your fish? ENTER AMOUNT TO NEAREST DOLLAR

- 18f. Did you have any other miscellaneous expenses for this trip? ENTER AMOUNT TO NEAREST DOLLAR

19. How much did you, personally, pay for lodging or camping on this trip? If you stayed more than one night, include only one nights lodging. ENTER AMOUNT TO NEAREST DOLLAR

20. What is your current occupational status? Are you...(READ LIST)
 Employed full-time outside the home= 1 Employed part-time outside the home= 2 Not presently employed= 3
21. Do you consider yourself to be primarily a student, homemaker, retired, or none of these?
 Student= 1 Homemaker= 2 Retired= 3 None of these= 4
22. Finally, how much do you estimate that you personally earned in 1980 before taxes? Would that be...(READ LIST)
- | | | | | |
|-----------------------|---|-----------------------|---|---------------|
| Less than \$5,000= | 1 | \$15,000 to \$25,000= | 4 | DO NOT READ |
| \$5,000 to \$10,000= | 2 | \$25,000 to \$35,000= | 5 | Don't know= 8 |
| \$10,000 to \$15,000= | 3 | More than \$35,000= | 6 | Refused= 9 |
23. Catch information:

Fisherman did not catch any fish=0
Fisherman gave complete catch information=1
24. What names do you use for the types of species of fish that you landed today? Enter common name(s) (used by fisherman)
 If the fisherman does not know one or more of the common names and those names can be ascertained, enter the accepted common names and teach those names to the fisherman. If the fisherman does not know one or more of the common names and those names cannot be ascertained, enter DK in the space provided for common name.
- 25 & 26. May I look at the fish that you caught that you're not taking with you? Enter species codes and number kept.
 For each species of fish identified, ask: Did you land any (specify common name) that you're not taking with you?
 If No, enter 00 in 27 and continue with next species. If Yes ask:

For each species landed but not identified ask:

27. How many (specify common name) did you land?

Enter number

28. How did you do with those (specify common name)?
- | | |
|--|---|
| a. How many did you give away? Enter number | c. How many did you throw back dead or throw away? Enter number |
| b. How many did you return alive? Enter number | d. How many did you dispose of in some other way? Enter number |
- | |
|---|
| For each species for which there were any fish returned alive (28b) or thrown away (28c) ask: |
|---|
- e. Why didn't you keep the (specify common name) that you caught today?
- | |
|---|
| Enter response given for most of the fish of that species that were either returned or thrown away or first response given. In the event of a tie |
|---|
- | | | |
|-------------------------------|---|--------------------|
| Illegal to keep= 1 | Damaged prior to landing= 5 | Tagged/released= 9 |
| Too small to keep for food= 2 | Spoiled/damaged after landing= 6 | Other= 10 |
| Too small for trophy=3 | Unacceptable as trophy (other than size)= 7 | Don't know= 98 |
| Undesireable species= 4 | Catch and release policy= 8 | Refused= 99 |

Supplement

CALIFORNIA BILLFISH SOCIOECONOMIC SURVEY SUPPLEMENTAL QUESTIONS

1. How many years have you owned or controlled your present boat? _____
 2. What would you say is the assessed value of your boat? \$ _____
 3. How much did you spend on your vessel for the following items during the past year?
 - a. Boat mooring: \$ _____
 - b. Boat repairs: \$ _____
 - c. Boat Insurance: \$ _____
 - d. Boat License & Taxes: \$ _____
 - e. Club dues: \$ _____
 - f. Miscellaneous \$ _____
 4. If for reasons beyond your control, you were unable to go billfishing on a day when you wanted, how likely would you be to plan some alternate recreational activity that would take you away from your home?
 - a. Very likely: 1
 - b. Somewhat likely: 2
 - c. Not too likely: 3
 - d. Not at all likely: 4
 - e. Don't know: 9
 5. How satisfied were you with your fishing trip today? Would you say you were...(READ LIST)
 - a. Very satisfied: 1
 - b. Somewhat satisfied: 2
 - c. Not too satisfied: 3
 - d. Not at all satisfied: 4
 - e. Don't know: 9
- DO NOT READ

6. What was the primary reason you were (RESPONSE IN Q. 5 with your trip?)
 (DO NOT READ LIST. CODE TYPE OF RESPONSE BELOW. PROBE FOR PRIMARY REASON.
 EXAMPLE: "Didn't catch any good fish". Probe: Would your primary reason
 be that you didn't catch enough fish or that you didn't catch the type
 of fish you were after?)

- | | | |
|---|---|--|
| a. Reasons associated with number of fish: | 1 | |
| b. Reasons associated with size of fish: | 2 | |
| c. Reasons associated with species of fish: | 3 | |
| d. Reasons associated with other people
(too crowded, etc.): | 4 | <input data-bbox="1353 598 1451 697" type="checkbox"/> |
| e. Reasons associated with facilities
(parking, pier, etc.): | 5 | |
| f. Other reasons: | 6 | |
| g. Don't know: | 9 | |

7. Thinking of the activity you would plan, would it be at or near
 the ocean, bay or shore, or would it be away from the ocean, bay
 or shore?

- | | | |
|---------------------------------------|---|--|
| a. Near the ocean, bay or shore: | 1 | |
| b. Away from the ocean, bay or shore: | 2 | <input data-bbox="1353 1111 1451 1210" type="checkbox"/> |
| c. Don't know: | 9 | |

8. How likely is it that this alternative activity would involve
 a boat of any type?

- | | | |
|-----------------------|---|--|
| a. Very likely: | 1 | |
| b. Somewhat likely: | 2 | |
| c. Not too likely: | 3 | <input data-bbox="1353 1463 1451 1561" type="checkbox"/> |
| d. Not at all likely: | 4 | |
| e. Don't know: | 9 | |

9. What would be the nature of this alternate activity? _____
